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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,103	06/05/2001	Herman F. Staats	180/102/2	6817

25297 7590 08/20/2003

JENKINS & WILSON, PA  
3100 TOWER BLVD  
SUITE 1400  
DURHAM, NC 27707

EXAMINER
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LANDSMAN, ROBERT S

ART UNIT	PAPER NUMBER
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1647

DATE MAILED: 08/20/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/874,103	STAATS ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Robert Landsman	1647

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Pri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 64-84 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 64-84 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Pri rity under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.
2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2-4</u> .	6) <input type="checkbox"/> Other:

**DETAILED ACTION*****1. Formal Matters***

- A. The Information Disclosure Statement, filed 6/5/01, has been entered into the record.
- B. The Information Disclosure Statement, filed 2/1/02, has been entered into the record.
- C. Claims 1-63 were pending in the application. In Amendment A, filed 6/15/01, Applicants cancelled claims 1-63 and added new claims 64-84. Therefore, claims 64-84 are the subject of this Office Action.

***2. Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

- A. Claims 64-84 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over at least claims 1-4, 6-9, 13-17, 21, 24, 28 and 29 of U.S. Patent No. 6,270,758. Although the conflicting claims are not identical, they are not patentably distinct from each other because all of the claims of the application are covered in the patent, the only difference is that independent claim 1 of the present application is broader in scope than independent claim 1 of the patent, but there is no reason why the claims of the present application could not have been claimed in the patent.

The claims of the present application are drawn to a method of eliciting an immune response against an antigen in a vertebrate subject by providing an antigen-adjuvant composition comprising an antigen and a cytokine adjuvant selected from the group consisting of IL-1 $\alpha$ , IL-12, IL-15 and IL-18. The composition will be administered intramucosally at various doses, over various time periods and in combination with other cytokines.

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Every limitation of the claims of the present application are claimed in the patent. The only substantive difference in the claims of the patent is that these claims recite that the cytokine adjuvant be "substantially non-toxic." However, it would have been obvious to the artisan to have used a substantially non-toxic cytokine adjuvant to aid in eliciting an immune response in a vertebrate subject in order not to harm the subject, especially since the intended use of this composition involves humans as these compositions can be used as effective mucosal vaccines to help protect patients against various viral infections. This can be seen not only from page 3 of the specification, but also from the recitation of "pharmaceutically acceptable vehicle."

### ***3. Statutory Double Patenting***

A. It is brought to Applicants' attention that, depending on any amendments present by Applicants, claims 64-84 may be rejected under Statutory Double Patenting over one or more claims of US Patent 6,278,758. The claims of the present invention are drawn to specific cytokines (Interleukines). These cytokines have been recited in the patent.

### ***4. Claim Rejections - 35 USC § 112, second paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A. Claims 64-84 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear if the antigen-adjuvant composition is water soluble, as recited in the claims of the patent. Furthermore, it is not clear how an insoluble composition would be able to elicit an immune response.

### ***5. Claim Rejections - 35 USC § 102***

A. It appears that the term "water-soluble" was required in order to distinguish the present claims from that of the prior art, namely "Gao et al., Abraham et al., and Elson et al. (on the IDS dated 6/5/01). If this term is not included in the claims, or an explanation as to why this term is being omitted from the claims, rejections over these 3 references will be made.

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***Advisory information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Landsman whose telephone number is (703) 306-3407. The examiner can normally be reached on Monday - Friday from 8:00 AM to 5:00 PM (Eastern time) and alternate Fridays from 8:00 AM to 5:00 PM (Eastern time).

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Gary Kunz, can be reached on (703) 308-4623.

Official papers filed by fax should be directed to (703) 308-4242. Fax draft or informal communications with the examiner should be directed to (703) 308-0294.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Robert Landsman, Ph.D.

Patent Examiner

Group 1600

August 19, 2003



ROBERT LANDSMAN  
PATENT EXAMINER